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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,828	12/29/2005	Takuya Tsukagoshi	126520	4153

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EXAMINER

ASSAF, FAYEZ G

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/562,828	Applicant(s) TSUKAGOSHI ET AL.	
	Examiner Fayez G. Assaf	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,8,10,12,13,15 and 17 is/are rejected.
- 7) ☒ Claim(s) 4,6,9,11,14,16 and 18-22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/29/2005</u> . | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 7, 8, 10, 12, 13, 15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Snyder et al. (US 6,064,586).

Regarding claims 1 and 7, Snyder discloses a holographic recording medium in which two-dimensional information pages each having multiple pixels are multiplexed and holographically recorded (see Fig. 1), wherein: address pixel (28 of Fig. 2) and data pixel signals (16 of Fig. 2) are recorded in each of the two-dimensional information pages; a plurality of pixels in the two-dimensional information page form the address pixels (28a and 28b of Fig. 2), and a set of the address pixels forms an address information region (either 28 a or 28b); the address information region is disposed at a different position in the two-dimensional information page on a two-dimensional

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information page basis or on a page group basis comprising a plurality of two-dimensional information pages (see Fig. 2); and the pixels outside the address information region disposed in the two-dimensional information page form a data region in which two-dimensional information is recorded as the data pixels (line 7 to line 18 of Col. 5).

Regarding claims 2, 3 and 8, Snyder discloses the set of the address pixels and a set of pixels similar to the set of the address pixels in the data region differ from each other in at least either on-pixel ratio or on-pixel arrangement (note the particular arrangement of 28a and 28b which have "on" status).

Regarding claim 5, 10, Snyder discloses the address information region comprising a pixel block including a set of at least nine address pixels, and all the address pixels in the pixel block are set to on or off state (the block of 12 cells in 28B below white cells 82).

Regarding claim 12, Snyder discloses the address pixel and the data pixel forming each of the two-dimensional information pages being displayed by pixels in a spatial light modulator (66 of Fig. 6) disposed on an optical path of the information beam.

Regarding claim 13, Snyder discloses a target two-dimensional information page being detected (See 74 of Fig. 7) by an amount of light from the address information region among

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diffraction light generated by irradiating a reference (62 of Fig. 7) or search beam to the holographic recording medium.

Regarding claim 15, Snyder discloses the reference or search beam being concentrated within the range of the address information region in a target two-dimensional information page, and sequentially illuminates each two-dimensional information page, thereby detecting the target two-dimensional information page by the diffraction light generated when the region illuminated by the reference or search beam matches the address information region (i.e. founding required page via search of address information; line 25 to line 50 of Col. 8).

Regarding claim 17, Snyder discloses a reference optical system for splitting a laser beam by using a beam splitter into an object beam (60 of Fig. 6) and a reference beam (62 of Fig. 6) and irradiating the reference beam to the holographic recording medium (70 of Fig. 6); a search optical system (i.e. all electronics resulting in addressing the SLM of Fig. 6) for irradiating the object beam as a search beam to the holographic recording medium; a spatial light modulator provided in an optical path of the search optical system and modulating the object beam to the search beam so as to sequentially illuminate each two-dimensional page; a light detector (74 of Fig. 7) for

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receiving diffraction light generated from the holographic recording medium by the illumination of the search beam; and a control unit (52 of Fig. 7) for detecting a target two-dimensional information page by an output of the light detector, wherein the spatial light modulator comprises multiple pixels capable of describing any two-dimensional information page for input.

Allowable Subject Matter

Claims 4, 6, 9, 11, 14, 16 and 18-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4, 9, 14, 19, 21 and 22 are allowable over the prior art for at least the reason that the prior art fails to teach or reasonably suggest the on-pixel ratio of the data region being set to 50% as set forth in the claimed combination.

Claims 6, 11, 16, 18 and 20 are allowable over the prior art for at least the reason that the prior art fails to teach or reasonably suggest each of the address information regions in the identical page group having a different on or off pixel arrangement in each of the two-dimensional information pages or page basis as set forth in the claimed combination.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fayez G. Assaf whose telephone number is (571) 272-2307. The examiner can normally be reached on 8-5 M-F.

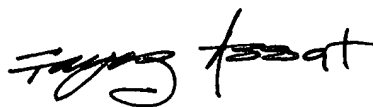
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, appearing to read "Faye G. Assaf". The signature is stylized with a large, looped 'F' and a cursive 'Assaf'.

Faye G. Assaf
Primary Examiner
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11/25/2006